

CLAIMS

1 1. An electrical cable comprising
2 a plurality of longitudinally extending twisted pairs of conductive elements;
3 at least one corrugated tape member separating at least one of said twisted pairs of
4 conductive elements from an adjacent one of said twisted pairs of conductive elements,
5 wherein the corrugated tape member separates and maintains spacing between twisted
6 pairs separated by said at least one corrugated tape member; and
7 a dielectric jacket surrounding and enclosing the plurality of twisted pairs.

1 2. An electrical cable as claimed in claim 1, wherein said cable comprises
2 four twisted pairs and the corrugated tape member separates two of the twisted pairs from
3 the remaining two twisted pairs.

1 3. An electrical cable as claimed in claim 1, wherein said cable comprises
2 more than one corrugated tape member.

1 4. An electrical cable as claimed in claim 1, wherein said cable comprises at
2 least one corrugated tape member and at least one other means for separating and
3 maintaining spacing between twisted pairs.

1 5. An electrical cable as claimed in claim 1, wherein the corrugated tape
2 member is comprised of a flexible, dielectric material.

1 6. An electrical cable as claimed in claim 5, wherein the corrugated tape
2 member is comprised of one or more materials selected from the group consisting of
3 polypropylene tape, polyamide woven glass, polyvinyl chloride, one or more polyolefins,
4 and one or more fluoropolymers.

1 7. An electrical cable as claimed in claim 1, wherein the corrugated tape
2 member is configured to have a width of approximately 0.12 inches to approximately
3 0.40 inches.

1 8. An electrical cable as claimed in claim 1, wherein the corrugated tape
2 member is configured to have a thickness of approximately 8 mils to approximately 12
3 mils.

1 9. An electrical cable as claimed in claim 1, wherein the corrugated tape
2 member is longitudinally corrugated along a length of the tape and said longitudinally
3 corrugated tape extends along a length of the twisted pairs separated by the corrugated
4 tape and along a length of said electrical cable.

1 10. An electrical cable as claimed in claim 9, wherein the longitudinal
2 corrugations comprise a series of ridges and grooves having a corrugation length,
3 measured from a first ridge to a second ridge, and said corrugation length being
4 approximately 0.12 inches.

1 11. An electrical cable as claimed in claim 1, wherein the corrugated tape
2 member is corrugated across a width of the tape and, and wherein the width corrugated
3 tape extends along a length of the twisted pairs separated by the tape and along a length
4 of said electrical cable.

1 12. An electrical cable as claimed in claim 11, wherein the corrugations across
2 the width of the tape comprise a series of ridges and grooves having a corrugation length,
3 measured from a first ridge to a second ridge, and said corrugation length being
4 approximately 0.06 inches.

1 13. An electrical cable as claimed in claim 1, wherein a plurality of tape
2 members are incorporated into said cable for separation of said twisted pairs and at least
3 one of said tapes is a corrugated tape member.

1 14. An electrical cable as claimed in claim 1, wherein a corrugated tape
2 member is supplied for separating at least one of said twisted pairs from a remainder of
3 the twisted pairs and wherein said tape member is corrugated so as to have an effective
4 thickness that exceeds an actual thickness of said tape member.

1 15. An electrical cable as claimed in claim 14, wherein said corrugated tape
2 member provides a spacing of said twisted pairs that equals or exceeds a spacing
3 achieved by a flat tape member having an equivalent actual thickness of material as the
4 corrugated tape member.

1 16. An electrical cable as claimed in claim 1, wherein said corrugated tape
2 member comprises a fire retardant polypropylene material.

1 17. A tape member for incorporation in an electrical cable to separate twisted
2 pairs of conductive elements contained therein, comprising:
3 a length of tape member configured along a length of said twisted pairs and a
4 length of said electrical cable; and
5 a plurality of corrugations configured into said tape member.

1 18. An electrical cable as claimed in claim 17, wherein the corrugated tape
2 member is configured to have a width of approximately 0.12 inches to approximately
3 0.40 inches.

1 19. An electrical cable as claimed in claim 17, wherein the corrugated tape
2 member is configured to have a thickness of approximately 8 mils to approximately 12
3 mils.

1 20. A tape member as claimed in claim 17, wherein said plurality of
2 corrugations are longitudinally configured into said tape member.
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1 21. An electrical cable as claimed in claim 20, wherein the longitudinally
2 configured corrugations comprise a series of ridges and grooves having a corrugation
3 length, measured from a first ridge to a second ridge, and said corrugation length being
4 approximately 0.12 inches.

1 22. A tape member as claimed in claim 17, wherein said plurality of
2 corrugations are configured across a width of said tape.

1 23. An electrical cable as claimed in claim 22, wherein the corrugations across
2 the width of the tape comprise a series of ridges and grooves having a corrugation length,
3 measured from a first ridge to a second ridge, and said corrugation length being
4 approximately 0.06 inches.

1 24. A tape member as claimed in claim 17, wherein at least one said
2 corrugated tape member is provided within said electrical cable for separating at least one
3 of said twisted pairs of conductive elements from adjacent twisted pairs of conductive
4 elements, and wherein the corrugated tape member separates and maintains spacing
5 between said twisted pairs.

1 25. A tape member as claimed in claim 17, wherein said corrugated tape
2 member separates two twisted pairs from two remaining twisted pairs in a four twisted
3 pair electrical cable.

1 26. A tape member as claimed in claim 20, wherein said longitudinally
2 corrugated tape member separates at least one of said twisted pairs from a remainder of
3 twisted pairs and said tape member is corrugated so as to have an effective thickness that
4 exceeds an actual thickness of said tape member.

1 27. A tape member as claimed in claim 20, wherein said corrugated tape
2 member provides a spacing of said twisted pairs that equals or exceeds a spacing
3 achieved by a flat tape member having an equivalent actual thickness of material as the
4 corrugated tape member.

1 28. A tape member as claimed in claim 17, wherein the corrugated tape
2 member is comprised of a flexible, dielectric material.

1 29. A tape member as claimed in claim 17, wherein the corrugated tape
2 member is comprised of one or more materials selected from the group consisting of
3 polypropylene tape, polyamide woven glass, polyvinyl chloride, one or more polyolefins,
4 and one or more fluoropolymers.

1 30. A tape member as claimed in claim 17, wherein said corrugated tape
2 member comprises a fire retardant polypropylene material.